CLAIMS

Sub a1

What is claimed is:

1. A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:
   a. an image transducer;
   b. a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;
   c. a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal;
   d. a multiplexer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
   e. a processor associated with the multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
   f. a network gateway.

2. The digital camera of claim 1, wherein the compressed still frame image data signal is of a higher resolution than the compressed full motion video image data signal.

3. The digital camera of claim 1, further including an activation mechanism for activating the camera to collect images in response to an activation signal.

4. The digital camera of claim 3, wherein the activation mechanism is an event detector adapted for generating an activation signal in response to the detection of an event.

5. The digital camera of claim 4, wherein the event detector is a manually operated switch.

6. The digital camera of claim 4, wherein the event detector is a sensor adapted for automatically responding to the occurrence of an event.

7. The digital camera of claim 6, wherein the event detector is a smoke detector.

8. The digital camera of claim 6, wherein the event detector is an acoustic event detector.

9. The digital camera of claim 6, wherein the event detector is motion detector.

10. The digital camera of claim 6, wherein the event detector is an alarm trigger switch.

11. The digital camera of claim 3, further including a wireless receiver and wherein the activation signal generator is a remote device having a wireless transmitter for generating an activation signal upon the occurrence of an event.

12. The digital camera of claim 1, further including a plurality of image transducers each adapted for collecting digital high resolution image signals, and a second multiplexer for merging all of said signals into a combined data signal.

13. The digital camera of claim 12, further including a motion compressor and a still frame compressor associated with each transducer and between the transducer and the second multiplexer.

14. The digital camera of claim 12, further including a single motion compressor and a single still frame compressor associated with all of the transducers and positioned between the first mentioned multiplexer and the second multiplexer.

15. The digital camera of claim 12, further including a cylindrical housing for housing the plurality of transducers, each of the transducers mounted in the cylindrical housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the transducers.

16. The digital camera of claim 15, wherein all of the transducers are mounted in a common plane generally perpendicular to the axis of the cylindrical housing.

17. The digital camera of claim 16, further including another plurality of sensors, each of said second plurality of sensors mounted in the cylindrical housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the transducers, said second plurality of sensors mounted in a common plane generally perpendicular to the axis of the cylindrical housing and axially spaced from said first mentioned common plane.

18. The digital camera of claim 12, further including a planar housing for supporting the plurality of sensors mounted in the housing on a planar surface thereof and spaced to provide full image collection coverage for a predetermined area.

19. The digital camera of claim 18, wherein all of the plurality of transducers are mounted in a straight line on the planar surface.

20. The digital camera of claim 19, further including a second plurality of transducers mounted in a second straight line on the planar surface of the housing, said second line being parallel to and spaced from said first mentioned line.

21. The digital camera of claim 12, further including a spherical housing for supporting the plurality of sensors mounted in the housing in angularly spaced, radially projecting relationship to provide full image collection coverage for a predetermined three dimensional space.

22. The digital camera of claim 12, further including a housing comprising an axial sliced cylinder having a planar wall and a partially cylindrical wall, the planar wall adapted for mounting the housing on a relatively flat surface, the plurality of transducers mounted in the cylindrical portion of the housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the transducers.

23. The digital camera of claim 22, wherein all of the transducers are mounted in a common plane generally perpendicular to the axis of the cylindrical housing.

24. The digital camera of claim 23, further including another plurality of sensors, each of said second plurality of sensors mounted in the cylindrical housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the transducers, said second plurality of sensors mounted in a common plane generally perpendicular to the axis of the cylindrical housing and axially spaced from said first mentioned common plane.

25. The digital camera of claim 15, the cylindrical housing further including a stand for supporting the housing on the floor with the transducer plane parallel to the floor.

26. The digital camera of claim 25, including cable and wire passageways in the stand.

27. The digital camera of claim 25, including a power supply for powering the camera housed within the stand.

28. The digital camera of claim 27, wherein the power supply is a self-contained, rechargeable power supply.

29. The digital camera of claim 15, the cylindrical housing including means for supporting the camera from the ceiling with the transducer plane parallel to the ceiling.

30. The digital camera of claim 13, the housing further housing a removable hard drive for storing the image data collected by the transducers.

31. The digital camera of claim 13, the housing further housing a WLAN transceiver.

32. The digital camera of claim 1, wherein the full motion video compressor is an MPEG chip.

33. The digital camera of claim 1,wherein the full motion video compressor is a JPEG chip.

34. A method for monitoring an area and producing a pictorial representation thereof for real time surveillance and for archiving and later retrieval of image data, the method comprising:

a. placing a plurality of image collectors in such a manner as to provide full coverage of the area being monitored;

b. assigning a zone to each collector;

c. temporarily locally storing the data collected at each zone;

d. transmitting the locally stored data at a specific zone to a central base when a triggering event occurs;

e. transmitting additional data on a real time basis until the triggering event is terminated.

35. The method of claim 34, further comprising the step of shifting from zone to zone as an event progresses through zones.

36. The method of claim 34, wherein the triggering event is an acoustic event.

37. The method of claim 36, including the steps of:

a. placing a plurality of acoustic event detectors in the area being monitored;

b. upon occurrence of an event utilizing the time differential among the acoustic event detectors to triangulate and locate the precise location of the event;

c. selecting the transducer covering the zone where the event occurred; and

d. initiating transmission of the image data collected by the selected transducer.

38. The method of claim 34, including the step of mapping the area to be monitored by transducer zone.

39. The method of claim 38, further including the step of tracking an event from zone to zone and providing a moving icon on the map to indicate the zone wherein the event is occurring on a real time basis.

40. The method of claim 34, further including the step of activating a plurality of transducers when an event is occurring in more than one zone.